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GOVERNMENT OF INDIA
MINISTRY OF COMMERCE AND INDUSTRY

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REPORT

OF THE

INDIAN TARIFF BOARD

ON THE CONTINUANCE OF PROTECTION TO THE

SODIUM THIOSULPHATE, SODIUM SULPHITE AND SODIUM BISULPHITE INDUSTRIES

BOMBAY
1952

PRINTED IN INDIA FOR THE MANAGER, GOVERNMENT OF INDIA PUBLICATION BRANCH, DELHI BY THE MANAGER GOVT. OF INDIA PHOTO-LITHO PRESS, NEW DELHI.

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GOVERNMENT OF INDIA
INISTRY OF COMMERCE AND INDUSTRY

New Delhi, the 29th March, 1952.

RESOLUTION

(Tariffs)

No.8(1)-T.B./52.- The Indian Tariff Board has submitted its report on the continuance of Protection to the Sodium Thiosulphate, Sodium Sulphite and Sodium Bisulphite Industries. Its recommendations are as follows:-

(1) The existing rates of duties on these chemicals should be extended for a further period of three years, *i.e.*, up to 31st December, 1954.

(2) The industry may apply for revision of duty under Section 4(1) of the Tariff Act, 1934, if at any future date, the import control policy is liberalized and foreign imports of photographic chemicals take place at prices which warrant higher rates of duty.

(3) Since most of the demand in the country for the photographic chemicals within the scope of the enquiry can be met by indigenous manufacturers, the desirability of maintaining and expanding the indigenous production of these chemicals should be kept in view and the quantum of imports regulated accordingly so long as the policy of licensing imports has to be continued for balance of payment considerations.

(4) The Central Government should assist the industry in obtaining adequate supplies of sulphur at reasonable prices.

(5) Government Departments should, as far as possible, obtain their requirements of photographic chemicals from indigenous producers provided the quality is satisfactory and the price is reasonable.

(6) The producers should carefully study the possibilities of bringing about improvement in their products at every stage of their manufacture and should make arrangements to get their final products tested in regard to physical and chemical properties and their performance in photographic work.

2. Government accept the recommendations and will take steps to implement them as far as possible.

3. The attention of the Industry is invited to recommendation (6).

K.N. KAUL,

Joint Secretary to the Government of India.

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CONTENTS

Para. Page.

1. Origin of the inquiry. 1
2. Method of inquiry. 1
3. Scope of the inquiry 3
4. Previous tariff inquiries. 4
5. Domestic demand. 7
6. Domestic production. 9
7. Quality of the indigenous products 14
8. Imports and import control policy. 16
9. Existing rates of duty 17
10. C.i.f. prices and landed costs 18
11. Board's estimate of cost of production and fair selling price. 20
12. Comparison of landed cost and fair selling price . 25
13. Measure of protection. 25
14. Other assistance asked for by the industry and Board's recommendations. 27
15. Summary of conclusions and recommendations 30
16. Acknowledgments. 32

APPENDICES

I. Government of India, Ministry of Commerce Resolution (Tariffs) No.30-T(1)/48, dated 6th August, 1948 33

II. List of persons or bodies to whom the Board's questionnaires were issued and from whom replies or memoranda were received 35

III. List of persons who attended the Board's Public Inquiry on 28th December, 1951 38

IV. Statement showing the comparison of cost (i) as estimated by the Board in 1948, (ii) actuals during the year ended 31st July, 1951 and (iii) as estimated for the year 1952 40

REPORT ON THE CONTINUANCE OF PROTECTION TO THE SODIUM THIOSULPHATE, SODIUM SULPHITE AND SODIUM BISULPHITE INDUSTRIES

Origin of the inquiry.

The protection granted to the section of the photographic chemicals industry engaged in the manufacture of sodium thiosulphate, sodium sulphite and sodium bisulphite was to terminate on 31st December, 1951. The Board had, therefore, to examine the claim of this industry for continuance of protection in accordance with paragraph 2 of the late Ministry of Commerce Resolution No. 30-T(1)/48 dated 6th August, 1948, (*vide* Appendix I). Pending inquiry by the Board, the Government of India, by the Ministry of Commerce and Industry Notification No. 34-T(2)/51 dated 24th December, 1951, have extended the period of protection to this industry until such date as further legislation on the subject can be enacted.

Method of inquiry.

2. (a) On 26th July, 1951, the Board issued special questionnaires to all the known manufacturers, their association, the principal importers and consumers of photographic chemicals. The Kesar Sugar Works, Ltd., Bombay, one of the producers, had represented to the Government that ready-made developers and acid fixing salts should also be included in the scope of the inquiry for the grant of protection; and the Board, in consultation with the firm, decided to obtain information regarding only X-ray developers and acid fixing salts with hardener. For this purpose, special questionnaires were issued on 2nd August, 1951, to producers, their association, importers and consumers of these chemicals. The Board also addressed the

Indian Chemical Manufacturers' Association, Calcutta, and the Directors of Industries of the Governments of Bombay, Punjab and Uttar Pradesh, inviting their views on the question of continuance of protection or assistance to the industry. The Ministry of Commerce and Industry (Development Wing) was also requested to furnish a memorandum on the subject of the inquiry. The Collectors of Customs were requested to furnish information regarding the c.i.f. prices of imported photographic chemicals and statistics of imports. The Director-General of Commercial Intelligence and Statistics, Calcutta, was requested to furnish information regarding imports and exports of these chemicals. A list of persons or bodies to whom the Board's questionnaires were issued and from whom replies or memoranda were received is given in Appendix II.

(b) On 27th July, 1951, the Board issued a Press Communique intimating that the protection granted to this industry was to terminate on 31st December, 1951, and that the Board would also consider the desirability or otherwise of the inclusion of X-ray developers and acid fixing salts in the scope of the Board's inquiry. Persons or Associations desiring to express their views on the question of continuance of protection or assistance to the photographic chemicals industry were requested to send their representations or memoranda to the Board for consideration.

(c) Shri S.V. Rajan, Assistant Cost Accounts Officer attached to the Board, examined the cost of production of the three chemicals *viz.*, sodium thiosulphate, sodium sulphite and sodium bisulphite produced by the Kesar Sugar Works, Ltd., Bombay on the 27th November, 1951.

(d) A public inquiry was held on 28th December, 1951 at the Board's office in Bombay. A list of persons who attended the public inquiry and gave evidence is given in Appendix III.

Scope of the inquiry.

3. The Board's previous tariff inquiries into the question of protection or assistance to the photographic chemicals industry were confined to only three articles, namely, sodium thiosulphate, sodium sulphite and sodium bisulphite. In January, 1950, however, the Kesar Sugar Works, Ltd., Bombay, represented to the Government of India that the protection granted to the three chemicals mentioned above would fail in its object if ready-made developers and acid fixing salts with hardener, of which the principal constituents are sodium sulphite and sodium thiosulphate, were not also brought within the scheme of protection. It was subsequently explained by the firm that only X-ray developers and acid fixing salts with hardener should be included in the scope of the protective duty. While the Government of India considered that there was no likelihood of any serious threat to the industry so long as these chemicals continued to be subject to import restrictions, they requested the Board to examine the desirability of extending the scope of protection at the time of the Board's next inquiry into the question of continuing protection to the industry. The question was accordingly discussed at the public inquiry. The indigenous producers informed the Board that all the constituents of these developers and acid fixing salts, except metol and boric acid which form a very small proportion of the final mixture, were being manufactured in India. They also informed the Board that they could meet the domestic demand for these chemicals, which was estimated at about 15,000 gallons each for X-ray developers and for acid fixing salts with hardener. The radiological departments of hospitals are the chief consumers of these chemicals and the representatives of some of them who were present at the inquiry stated that the indigenous X-ray developers and acid fixing salts with hardener were not uniform in quality and not as stable and pure as the imported articles and that on account of these and other defects there was considerable delay in obtaining reliable X-ray photographs for correct diagnosis of diseases.

Moreover, the supplies of these chemicals by the indigenous producers were also described as irregular. In these circumstances, the radiologists had represented to Government for a liberalisation of the import control policy in respect of these chemicals and their request was granted in 1950. The producers, however, contended that they produced these chemicals according to the British specifications and had not received any complaints regarding their quality and deliveries. On the basis of the evidence available to us, it does not appear that this section of the industry is as yet properly established. In any case, the photographic chemicals industry, as a whole, is not likely to be adversely affected to any serious extent by foreign competition in respect of X-ray chemicals, because the domestic industry will not be able to utilise more than 10 per cent of its output of the protected varieties of photographic chemicals such as sodium sulphite and sodium thiosulphate even if it were to supply the whole of the domestic demand for X-ray chemicals. For these reasons, the Board does not consider it necessary for the present to include these chemicals within the scope of the present inquiry, and has accordingly decided to confine it to only three photographic chemicals, namely, sodium thiosulphate, sodium sulphite and sodium bisulphite.

4. (a) *History of the protective tariff:-*

Previous tariff inquiries.

(i) The question of protection or assistance to the photographic chemicals industry was first examined by the Board in 1946. The Board in its Report dated 19th April, 1946, recommended grant of protection to this industry for a period of three years in the form of specific protective duties at Rs. 5/- per cwt. on sodium thiosulphate and Rs. 8/- per cwt. on sodium sulphite and sodium bisulphite imported from the United Kingdom. These rates of duties were to be revised under Section 4(1) of the Indian Tariff Act of 1934 if the landed cost ex-duty fell below Rs. 21/- per cwt. for sodium thiosulphate, Rs. 24/- per cwt. for sodium sulphite and Rs. 20/- per cwt. for sodium bisulphite. The Government of India in the late Ministry of Commerce, by their Resolution No. 218-T(68)/46 dated 21st December, 1946, accepted these recommendations, and gave legislative effect to them.

(ii) The Board considered early in 1949 under Section 4 (1) of the Indian Tariff Act whether the quantum or nature of protection then enjoyed by the industry was adequate or not. In its Report dated 18th March, 1949, the Board recommended that the rates of specific protective duties on these chemicals, when imported from the U.K., should be increased to Rs. 13/- per cwt. for sodium thiosulphate, Rs. 23/- per cwt. for sodium sulphite, and Rs. 19/- per cwt. for sodium bisulphite. The Board also recommended that imports of these chemicals from non-British sources should be subject to duties at Rs. 15-8-0 per cwt. for sodium thiosulphate, Rs. 26/- per cwt. for sodium sulphite and Rs. 21-8-0 per cwt. for sodium bisulphite. The Government of India in the late Ministry of Commerce, by their Resolution No. 8(1)-T.B./49 dated 3rd May, 1949, accepted these recommendations and gave legislative effect to them.

(iii) The question of continuance of protection to this industry beyond 31st March, 1950, was investigated by the Board in January, 1950. The Board recommended continuance of protective duties at the previous rates for a period of two years. Government accepted this recommendation and by the Indian Tariff (Second Amendment) Act dated 18th March, 1950, extended the period of protection to this industry upto 31st December, 1951. This period, as has already been stated in paragraph 1, has been further extended, by Notification No. 34-T(27)/51 dated 24th December, 1951, pending a decision on the Board's report on the present inquiry.

(b) *Non-fiscal measures recommended by the Board and how far these have been implemented:-*

In its Report of April, 1946, the Board made the following additional recommendations:-

(i) The manufacturers of these chemicals should be given facilities for importing the equipment and machinery necessary to modernise their plants.

(ii) The manufacturers should explore the possibility of forming a joint sales organization with a view to securing a better distribution of their products.

(iii) They should explore the possibility of entering into an arrangement with a well-equipped film laboratory for the purpose of carrying out photographic test on the quality and performance of their materials.

(iv) The industry should attempt, at as early a date as possible, the manufacture of other chemicals required by the photographic and film industries, so that the consumers of these chemicals may be able to get all their supplies from within the country. Government drew the attention of the industry to these recommendations.

With regard to the Board's recommendation regarding the installation of improved equipment and machinery, the Kesar Sugar Works, Bombay, have informed the Board that they tried to obtain a new plant of an economic size, but have not succeeded so far. They have, however, stated that their production has been mechanised as far as possible.

The Liberty Chemical Works, Bombay, have informed the Board that they have already mechanised their production of sodium thiosulphate.

As regards the Board's second recommendation for the formation of a joint sales organization, the producers have stated that they have not yet felt the necessity for such an organization since the consumers have not raised any objection to the existing selling arrangements. The Board understands that the Kesar Sugar Works, Ltd. maintain stocks of their products in various parts of the country, from where the day-to-day requirements of the consumers are met without any inconvenience.

As regards the third recommendation of the Board regarding the testing of the products in a Film Laboratory, the Kesar Sugar Works, Bombay, have stated that they have made arrangements with the Bombay Film Laboratories Ltd. where all of their new products are tested for performance. They have also arranged to test the quality of their products by setting up a laboratory in their own works.

As regards the last recommendation of the Board regarding the manufacture of other chemicals required by the photographic and film industries, the Board has been informed that the Kesar Sugar Works have already put on the market the following additional chemicals required by the cinematographic and photographic industries:

Potash chrome alum, chromic acid, hydroquinone, X-ray developer and X-ray fixing salt with or without hardener, M.Q. developer, fine grain developer, potash alum and ammonia alum.

The Kesar Sugar Works have also plans to manufacture potassium ferricyanide in the near future. The Liberty Chemical Works have stated that they have started the production of desiccated hypo, potassium metabisulphite, flash powder and mounting paste. They have also plans to manufacture potash chrome alum.

Domestic demand.

5. The estimates of annual domestic demand for the three photographic chemicals, namely, sodium thiosulphate, sodium sulphite and sodium bisulphite are discussed separately below:-

(a) *Sodium thiosulphate:* The Board at its first inquiry held in 1946, estimated the annual domestic demand for sodium thiosulphate in undivided India in 1943 at 800 to 1000 tons. In 1949, the producers represented that this estimate was too high. After due consideration the Board came to the conclusion that the maximum annual demand for this chemical should not be taken to be more than 800 tons per annum. During the course of the present inquiry, the Board has received varying estimates of demand for this chemical. The All-India Chemical Manufacturers' Association, Calcutta, has estimated the demand to be 450 tons per annum, whereas Kodak Ltd. have estimated it to be about 820 tons per annum. The Ministry of Commerce and Industry (Development Wing), however, place the current demand at 620 tons per annum. Taking into consideration the indigenous production and imports for 1948 and 1949, it is found that the annual consumption was 770 tons in 1948 and 655 tons in 1949. During these two years, the average consumption was about 712.5 tons. During 1950 and 1951 there were almost no imports and the indigenous production was 464.2 tons in 1950 and 677.44 tons in 1951. The Board has also been informed that during these two years there were no complaints of scarcity of this chemical, which implies that the indigenous production was sufficient to meet the domestic demand. The average annual consumption in these two years was, therefore, 569 tons per annum. The producers have informed the Board that there had been a genuine decline in the rate of consumption in 1950, because the Madras tanneries which used to consume about 150 tons had to curtail their production owing to a shortage of raw hides. It was agreed at the public inquiry that the estimate of annual demand for sodium thiosulphate might be taken at 600 tons. This is further corroborated by the sales of sodium thiosulphate by the producers during the first four months of 1951, which amounted to 196.4 tons. We, therefore, estimate the annual demand for sodium thiosulphate in the country at about 600 tons.

(b) *Sodium sulphite and sodium bisulphite:* As regards sodium sulphite and sodium bisulphite, the Board in its report of 1946 estimated the demand for these two chemicals taken together for undivided India at 650 to 750 tons per annum. In 1949, the Board estimated the annual demand of sodium sulphite to be 200 tons and that for sodium bisulphite 300 tons. The decrease in demand was mostly due to the fact that estimates of demand made in 1946 related to undivided

India. During the course of the present inquiry, the All-India Chemical Manufacturers' Association, Calcutta, informed the Board that the demand for sodium sulphite and sodium bisulphite would be about 200 tons per annum for each of these chemicals. Kodak Ltd. have estimated the demand of sodium sulphite for photographic purposes including the film industry at 217 tons. The Ministry of Commerce and Industry (Development Wing) have estimated the demand for sodium sulphite at 180 tons and for sodium bisulphite at 300 tons. We discussed the different estimates at the public inquiry. As regards the demand for sodium sulphite, we have been informed that this chemical is required in a variety of uses as in dyeing of textiles, digestion of wood pulp, bleaching of delicate fabrics, as an anti-chlor chemical, food preservative, photographic developer and boiler compound. During 1951, the production of sodium sulphite was 202.45 tons; and it is likely that, with the further development of the industries using sodium sulphite, the demand will increase. We, therefore, estimate that the future demand for sodium sulphite will be about 250 tons per annum.

As regards sodium bisulphite, we have carefully considered the different estimates of demand placed before us, and we estimate the future demand for sodium bisulphite to be 300 tons per annum.

Domestic production.

6. There are at present four factories engaged in the manufacture of sodium thiosulphate, two factories in the manufacture of sodium sulphite, and three factories in the manufacture of sodium bisulphite. Two of these factories, *viz.*, Kesar Sugar Works and Liberty Chemical Works, both located in Bombay, manufacture all the three chemicals, *viz.*, sodium thiosulphate, sodium sulphite and sodium bisulphite; while another factory run by Shambhu Nath & Sons, Amritsar, is interested only in the manufacture of sodium thiosulphate. The rated capacity and actual production of these three chemicals by the various units are discussed separately in respect of each chemical below:-

(a) *Sodium thiosulphate:* At the time of the Board's first inquiry in 1946, six manufacturers were interested in the production of sodium thiosulphate. The total rated capacity of these six units was 1570 tons per annum. During the period of five years during which the industry has enjoyed protection, one new unit, *viz.*, Liberty Chemical Works, Bombay, was established to produce this chemical; but during the same period, three factories stopped the manufacture of this chemical. At present, therefore, only four factories are manufacturing sodium thiosulphate and the total rated production capacity of these four factories is 1650 tons per annum. As regards the actual production of sodium thiosulphate, it was estimated by the Board in 1946 that it was about 15 to 30 per cent. of the annual rated capacity of the then existing units, *viz.*, 236 tons to 472 tons. During 1951, however, the production of sodium thiosulphate by the four factories increased and amounted to 677 tons. The following table shows the annual rated capacities of the factories producing sodium thiosulphate in 1946 and 1951 and their actual production during the period 1948-51:

	Annual rated capacity		Production			
	1946	1951	1948	1949	1950	1951
	Tons	Tons	Tons	Tons	Tons	Tons
1. The Kesar Sugar Works Ltd., Bombay	300	600	532.50	244.20	206.40	299.10
2. The Liberty Chemical Works, Bombay	-	300	-	44.05	110.40	206.00
3. Maneklal Auxiliary Products, Bombay	360	-	-	-	-	-
4. Shambhu Nath and Sons, Amritsar	300	300	65.90	67.70	44.40	52.34
5. Eastern Chemical Works, Bombay	100	-	-	-	-	-
6. National Chemical Works, Bombay	60	-	-	-	-	-
7. Cawnpore Chemical Works, Kanpur	450	450	N.A.	N.A.	103.00	*120.00
	1570	1650	598.40	355.95	464.20	677.44

(Note-* Based on production of 60 tons for the half year.
N.A. indicates that information is not available).

It will be seen from the above table that in 1948 the total production of sodium thiosulphate by the two units, namely, Kesar Sugar Works and Shambhu Nath & Sons, was 598 tons. The figure of production of Cawnpore Chemical Works for 1948 is not available. Assuming its production to be about the same as in 1951, it might be estimated that the total production of sodium thiosulphate was about 700 tons. In 1949 there was a decline in production in spite of the fact that a new factory, namely, the Liberty Chemical Works, came into existence. The production of the three factories in that year was about 356 tons. Assuming the production of Cawnpore Chemical Works to be about 100 tons, *i.e.*, about the same as in 1951, it might be estimated that the total production in 1949 was about 456 tons. During 1950, the production showed a slight upward trend, reaching a total of 464.2 tons. During 1951, however, 677 tons were produced which is nearly the same as the production in 1948.

(b) *Sodium sulphite*: At the time of the Board's inquiry in 1946, there were only two factories manufacturing sodium sulphite, Kesar Sugar Works and Maneklal Auxiliary Products, both located in Bombay. These two factories had a total rated capacity of about 330 tons per annum. During the five years of protection, a new unit namely, Liberty Chemical Works, Bombay, installed a plant for the manufacture of sodium sulphite, whereas Maneklal Auxiliary Products stopped production. During this period Kesar Sugar Works have increased their production capacity for the manufacture of sodium sulphite to 360 tons per annum. The total capacity for the production of sodium sulphite of the two existing units is now stated to be 396 tons per ammum. As regards actual production, it was only 55 tons in 1946. In 1948, Kesar Sugar Works produced 282.7 tons whereas in 1949, the production declined to 82.2 tons. Although Liberty Chemical Works installed its plant for the production of this chemical during 1949, it has not produced any sodium sulphite since the establishment of the plant. Kesar Sugar Works produced 162.8 tons of sodium sulphite in 1950 and 202.45 tons in 1951. The following table shows the annual rated capacities of factories producing sodium sulphite in 1946 and 1951 and their actual production during the period 1948-51:-

	Annual rated capacity		Production			
	1946	1951	1948	1949	1950	1951
	Tons	Tons	Tons	Tons	Tons	Tons
The Kesar Sugar Works Ltd., Bombay	150	360	282.70	82.20	162.80	202.45
The Liberty Chemical Works, Bombay	-	36	-	-	-	-
Maneklal Auxiliary Products, Bombay	180	-	-	-	-	-
Total	330	396	282.70	82.20	162.80	202.45

(c) *Sodium bisulphite:* At the time of the Board's inquiry in 1946, two units, namely, Kesar Sugar Works and Maneklal Auxiliary Products, both located in Bombay had a total rated capacity of 330 tons per annum for the production of sodium bisulphite. In 1949, Liberty Chemical Works installed a plant for the manufacture of sodium bisulphite having a capacity of 72 tons per annum, whereas Maneklal Auxiliary Products stopped production. In 1951 the three units, namely, Kesar Sugar Works, Liberty Chemical Works and the Cawnpore Chemical Works had a total capacity of 672 tons per annum.

As regards the production of sodium bisulphite, it was 54 tons in 1946. In 1948, Kesar Sugar Works produced about 125.8 tons, but their production in 1949 declined to 30.4 tons. The Cawnpore Chemical Works produced 80 tons in 1949. Thus the total production of sodium bisulphite in 1949 was 110.4 tons. During 1950, the total production by the three units including Liberty Chemical Works was 281.5 tons whereas in 1951 the total production by the three units is stated to be 296 tons. It will, therefore, be seen that the production of sodium bisulphite declined considerably in 1949 but that it has steadily increased since 1950. The following table shows the annual rated capacities of factories producing sodium bisulphite in 1946 and 1951 and their actual production during the period 1948-51:-

Name of Producer	Annual rated capacity		Production			
	1946	1951	1948	1949	1950	1951
	Tons	Tons	Tons	Tons	Tons	Tons
The Kesar Sugar Works Bombay.	180	300	125.80	30.40	167.15	184.20
The Liberty Chemical Works	-	72	-	-	11.40	15.45
Maneklal Auxiliary Products, Bombay.	180	-	-	-	-	-
Cawnpore Chemical Works, Kanpur.	300	300	N.A.	80.00	103.00	*96.40
Total	660	672	125.80	110.40	281.55	296.05

* Based on half year's production.

N.A. indicates that information is not available.

It will be observed that there was generally a steep decline in the production of the three chemicals in 1949. One of the factors leading to the decline in production of sodium thiosulphate in 1949 as compared with the preceding year was stated to be the placing of imports of photographic chemicals on an O.G.L., with consequent discouragement of indigenous production. The O.G.L. was cancelled in May, 1949, and thereafter imports of photographic chemicals were severely restricted; and, as will be seen from the figures given above, indigenous production steadily increased. We also understand that for some time the producers had difficulty in procuring the raw materials required for the manufacture of photographic chemicals, particularly, sulphur and soda ash. However, there has been some improvement in procuring the requisite supplies of sulphur and soda ash, as the distribution of sulphur is being done through the All-India

Chemical Manufacturers' Association, and suitable arrangements for the supply of soda ash to this industry have also been made by the indigenous producers of soda ash.

Quality of the indigenous products.

7. (a) The Board has received divergent opinions from producers, consumers and importers regarding the quality of the three indigenous photographic chemicals which fall within the scope of the inquiry. The producers have pointed out that the quality of the chemicals manufactured by them is comparable with that of the imported products and that Messrs. National Chemical Ltd., Madras, and a large number of motion picture studios have certified that the indigenous photographic chemicals are not inferior to the imported materials. Some of the consumers, namely, Modern Theatres Ltd., Salem, Central Cine Corporation Ltd., Bombay, Famous Cine Laboratories and Studios, Bombay, have, however, stated that the quality of the indigenous chemicals is generally below the standard of the imported materials, as they are less pure and cannot develop the same footage of films as the imported product. It is also pointed out that since 1949, there have been no marked improvements in the quality of the indigenous products. As a result of these defects it is stated by them that the expenditure of the consuming industries in regard to these chemicals has increased considerably. On the other hand, the New Theatres Ltd., Calcutta, have informed us that the percentage of impurities in the indigenous products has gone down since 1949 but that there is still scope for improvement. Manek Studios, Poona, have stated that the quality of the indigenous sodium sulphite is equivalent to that of the imported one and that its purity has been improving. The importers have, however, pointed out that the quality of the indigenous products is tolerably good and that during the last two years when the imports of these chemicals were restricted, they had been supplying indigenous products to the consumers in the country without receiving any serious complaints. The Director of Industries, Bombay, has stated that he has observed improvement

in the quality of indigenous sodium thiosulphate. The Director of Industries, Punjab, and the Director of Cottage Industries, Uttar Pradesh, have stated that the indigenous photographic chemicals are satisfactory in quality. The Manager, Government Photo-zincographic Press and Photographic Expert, Government of Bombay, Poona, has, however, stated that the indigenous sodium thiosulphate used in his laboratory has not given quite satisfactory performance with panchromatic negatives. The Director of Chemicals, Drugs and Plastics, Ministry of Commerce and Industry (Development Wing), has informed us that with the restriction of imports of these chemicals, the consuming industries have been using only the indigenous products and that no complaints regarding their quality have been received.

(b) The Indian Standards Institution has formulated and published tentative standard specifications for the three photographic chemicals coming within the scope of our inquiry, *viz.* I.S.246 - 1950 for sodium thiosulphate, I.S.247 - 1950 for sodium sulphite and I.S.248 - 1950 for sodium bisulphite. The producers have informed the Board that they have accepted these standards and that their products are manufactured according to these specifications. They have, however, not produced any test reports from recognised laboratories regarding the conformity of their products to the standard specifications.

(c) The opposing views expressed by producers, importers and consumers regarding the quality of the indigenous products were discussed at the public inquiry. It was generally agreed that the quality of the indigenous products was satisfactory and comparable with that of the imported materials. We consider, however, that there is considerable scope for improvement as regards the purity and uniformity in performance of the indigenous photographic chemicals and that, with improved methods, better technical supervision and adequate provision for research, the industry can turn out products which will give still greater satisfaction to the consumer. We, therefore, recommend that the producers should carefully study the possibilities of bringing about improvement in their products at every stage of their manufacture and should make arrangements to get their final products tested in regard to physical and chemical properties and their performance in photographic work.

Import and import control policy.

8. (a) *Imports:* The statistics of imports of sodium thiosulphate are published in the Annual Accounts of Sea and Air-borne Trade and Navigation of India. As regards the other two chemicals, namely, sodium sulphite and sodium bisulphite, statistics of imports were not recorded separately until September, 1949, when on the recommendation of the Board, the Director General of Commercial Intelligence and Statistics made arrangements to record the statistics of imports of these chemicals. The quantity of sodium thiosulphate imported in 1948 was 172 tons, 299 tons in 1949 and 0.30 tons in 1950 and 0.35 tons in the first half of 1951. As regards imports of sodium sulphite, 9.25 tons were imported in the last four months (September-December) of 1949, after which there were hardly any imports of this chemical. In the case of sodium bisulphite, 44.9 tons were imported in the last four months of 1949; thereafter the quantity imported was negligible, being only 0.15 tons in 1950.

(b) *Import Control Policy:* Imports from all sources were totally banned upto 3rd September, 1948. During the period from September, 1948 to May, 1949, imports of sodium thiosulphate, sodium sulphite, and sodium bisulphite were on O.G.L. XI and their imports from the sterling area were freely permitted. In May, 1949, O.G.L. XI was cancelled and no import licences were issued for sodium thiosulphate, sodium sulphite and bisulphite during the subsequent two licensing periods, namely, July-December, 1949 and January-June, 1950, except to the extent of firm commitments entered into before the cancellation of the O.G.L. During the period

July-December, 1950, no licences were issued for imports from any source. During the period January-June, 1951, no licences were issued for imports from dollar or soft currency sources, but imports from Japan were permitted to established importers and actual users on an *ad hoc* basis. During July-December, 1951, no licences were issued for imports from any source. The same import policy is being continued during January-June 1952.

Existing rates of duty.

9. Sodium sulphite, sodium bisulphite and sodium thiosulphate are at present assessed to duty under Item No. 28(18) (b), (c) and (d) respectively of the Indian Customs Tariff (Thirty-fourth Issue). The relevant extract from the Tariff is given below:-

Item No.	Name of article	Nature of duty.	Standard rate of duty.	Preferential rate of duty if the article is the produce or manufacture of		
				The U.K.	A British Colony	Burma
1	2	3	4	5	6	7
28(18)(b)	SODIUM SULPHITE					
	(i) of British manufacture	Protective	Rs. 23/- per cwt. plus 5 % of the total duty.			
	(ii) not of British manufacture.	Protective	Rs. 26/- per cwt. plus 5 % of the total duty.			

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(1)	(2)	(3)	(4)	(5)	(6)	(7)
28(18)(c)	SODIUM BISULPHITE					
	(i) of British manufacture	Protective	Rs. 19/- per cwt. plus 5 % of the total duty.	-	-	
	(ii) not of British manufacture.	Protective	Rs. 21-8-0 per cwt. plus 5 % of the total duty.	-	-	
(d)	SODIUM THIOSULPHATE					
	(i) of British manufacture	Protective	Rs. 13/- per cwt. plus 5 % of the total duty.	-	-	
	(ii) not of British manufacture.	Protective	Rs. 15-8-0 per cwt. plus 5 % of the total duty.	-	-	
	Provided that the articles dutiable under sub-items (b), (c) and (d) manufactured in a British Colony shall be deemed to be of British manufacture.					

C.i.f. prices and landed costs.

10. The Collector of Customs, Calcutta, has furnished the following information regarding the c.i.f. prices of sodium thiosulphate, sodium sulphite and sodium bisulphite for consignments landed in July 1951:-

SODIUM THIOSULPHATE

4 oz. packing	...	...	Rs.	2-6-9	per	lb.
8 oz. "	...	...	"	1-11-2	"	"
1 lb. "	...	...	"	1-4-0	"	"
28 lbs. "	...	...	"	0-11-2	"	"
1 cwt. casks	...	...	"	0-8-6	"	"

SODIUM SULPHITE

Chemically pure	...	Rs. 2-5-5 per bottle of 1 lb.

SODIUM BISULPHITE

			(In 1 cwt. lots)
4 oz. packing	...	...	Rs. 1-15-2 per lb.
8 oz. "	...	...	" 1-10-9 " "
1 lb. "	...	...	" 1-4-6 " "
28 lbs. "	...	...	" 0-12-6 " "

At the time of the public inquiry the representatives of importers and producers were requested to furnish, if possible, the c.i.f. prices of the latest consignments of these three chemicals. But as the imports of these chemicals during 1951 were negligible, it was not possible to obtain information regarding the c.i.f. prices of consignments actually landed in India after July 1951. The Kesar Sugar Works, however, informed the Board that Watts Chemicals Ltd., London, have furnished the latest c.i.f. quotations for these three chemicals which work out to Rs. 29.1 per cwt. for sodium thiosulphate, Rs. 23.98 per cwt. for sodium sulphite and Rs. 38.43 per cwt. for sodium bisulphite. The Board also obtained the f.o.b. quotations for sodium thiosulphate and sodium sulphite from the Commercial Adviser to the High Commissioner for India in the U.K. as furnished to him by John Riley & Sons, Ltd., Hapton, Nr. Burnley, England. These quotations were for different packings, and for the purpose of comparison, we have taken the f.o.b. price of 1 cwt. kegs or drum packing which is £ 38-17-6 per ton of sodium thiosulphate, photographic quality, and £ 55-12-6 per ton of sodium sulphite anhydrous powder 48/50 per cent SO_2. After adding freight at the rate of Sh. 100 per ton weight less one per cent. for sodium thiosulphate and Sh. 157/6 per ton weight less one per cent. for sodium sulphite and Marine insurance at the rate of Sh. 12/- per

£ 100/- value, the c.i.f. price per cwt. for sodium thiosulphate works out to Rs. 29.49 and that for sodium sulphite to Rs. 42.68.

Board's estimate of cost of production and fair selling price.

11. We have examined the figures of cost of production of sodium thiosulphate, sodium sulphite and sodium bisulphite produced by the Kesar Sugar Works Ltd., Bombay, for the year ended 31st July, 1951 as ascertained by the Assistant Cost Accounts Officer attached to the Board. During this period, the Kesar Sugar Works produced 5160 cwts. of sodium thiosulphate, 3565 cwts. of sodium sulphite and 4170 cwts. of sodium bisulphite. A comparative statement showing the break-down of the ex-works cost actually incurred by the Kesar Sugar Works during the year ended 31st July, 1951 and the Board's estimate of cost of production in 1948-49 is given in Appendix IV. We have worked out the estimate of future cost for 1952. The detailed break-down of these estimates is also given in Appendix IV. The salient features of (i) the actual costs of production during the year ended July 1951 and (ii) the estimates of future cost are discussed below:-

Raw materials: The principal raw materials used in the manufacture of these chemicals are soda ash, sulphur and caustic soda. The rate of consumption for the production of one cwt. of sodium thiosulphate, sodium sulphite and sodium bisulphite according to the Board's costs estimates for 1948-49, 1950-51 and 1952 are given below:

	Board's estimate in 1948-49 (1)	Actuals for 1950-51 (2)	Estimate for 1952 (3)
	cwt.	cwt.	cwt.
Sodium thiosulphate			
Sulphur	0.3137	0.3517	0.3137
Soda ash	0.5000	0.5615	0.5000
Caustic soda	0.0388	0.0275	0.0388

	(1)	(2)	(3)
Sodium sulphite			
Sulphur	0.3153	0.3584	0.3153
Soda ash	0.9716	1.0883	1.0000
Caustic soda	0.0909	0.0668	0.0750
Sodium bisulphite			
Sulphur	0.3655	0.4144	0.3655
Soda ash	0.5887	0.6610	0.5887
Caustic soda			

It will be seen from the above statement that the consumption of sulphur during 1950-51 has been more than that allowed by the Board in 1948-49. This has been explained by the firm as due to lower percentage of purity of sulphur recently obtained and also to the intermittent production of these chemicals. We have, however, taken for our estimates the consumption of sulphur at the same level as adopted by the Board in 1948-49. We also observe that the consumption of soda ash was more in 1950-51 than that estimated in 1948-49. At the same time, there had been a reduction in the consumption of caustic soda. This has been explained by the producers as due to a change in the method of manufacture. As regards the purchase price of these raw materials for 1950-51, the weighted average purchase rates of Rs. 10.11 per cwt. for sulphur, Rs. 18.38 per cwt. for soda ash and Rs. 30.78 per cwt. for caustic soda were adopted. It is, however, contended by the firm that sulphur to the extent of 300 tons will be required during 1952. It is estimated that only 60 per cent. of this will be available to them from the allocation of sulphur supplies on Government account at a price of Rs. 17 per cwt. and that the balance of their requirements, i.e., 40 per cent. will have to be purchased from the market at an average price of Rs. 30 per cwt. The weighted average rate for sulphur will, therefore, work out to Rs. 22/3/3 per cwt. This price has been adopted by us for working out the estimates of future costs. We have allowed in our estimates of costs, the controlled price of soda ash and caustic soda, *viz.*, Rs. 22/9 per cwt. for soda ash and Rs. 37/10 per cwt. for caustic soda.

Power and fuel: Since 1948 when the cost of production of this factory was last investigated, there has been some increase in cost due to the greater consumption of fuel oil and also a rise in its price. The greater consumption of fuel oil was due to (a) the quality of oil which was denser than that used in 1948-49, and (b) the adoption of steam driers for drying sodium bisulphite instead of solar evaporation used in 1948-49. The average price of furnace oil at the factory site during the year ended 31st July, 1951 has worked out to Rs. 5.03 per cwt. whereas during 1948-49 it was estimated at Rs. 4.85. In estimating the incidence of cost due to power and fuel for 1952, we have, however, taken a price of Rs. 6.5 per cwt. for furnace oil in accordance with the recent circular from the suppliers of furnace oil. As regards the quantity of furnace oil to be used in future, it is visualised that it will be possible to effect an economy of about 15 per cent. as a result of continuous working of the factory throughout the year and higher production as estimated by us.

Labour: The level of wages during 1950-51 was higher than that estimated in 1948-49, the average rate of earning per man per day during 1950-51 being Rs. 2-4-0 as against Rs. 2 adopted in 1948-49. The incidence of cost per cwt. of sodium sulphite and sodium bisulphite was, however, less as a result of higher production and more efficient utilization of labour, whereas it was higher in the case of sodium thiosulphate due to a lower production. We have estimated an increase of 7½ per cent. in the cost of labour on account of increase in salaries due to likely grant of increments to staff in 1952. In the case of sodium thiosulphate, a small increase in labour force has also been provided for picking crystals.

Depreciation: Since 1948-49 some additional mechanical equipment has been installed in the factory with a view to increasing the production of sodium sulphite and sodium bisulphite. Depreciation has been calculated at the income-tax rates on the written down value.

Other overheads: In 1948-49 the Board had not taken into consideration the managing agents' office allowance and other head office expenses like Directors' fees, Auditors' fees, etc. In the cost worked out for 1950-51 and 1952, a proportionate share of these expenses has been included.

Packing: Sodium thiosulphate is being packed in teak-wood boxes. About 10 per cent. of the total supply of this chemical intended for the local dealers was supplied during 1950-51 in paper bags of 1 cwt. The average cost of packing of sodium thiosulphate amounted to Rs. 4 per cwt. during 1950-51. Sodium sulphite and sodium bisulphite are being packed in 1 cwt. drums, and the average cost per drum worked to Rs. 3-10-0 during 1950-51. We have adopted the same figures for the purpose of ascertaining the cost of production under this item for 1952.

Interest on working capital: Interest has been allowed at 4½ per cent. on a working capital equivalent to three months' cost of production.

Return on fixed capital: The total block on 31st July, 1951 amounted to Rs. 5.4 lakhs on which a return at 10 per cent. has been allowed. We have allocated this amount to the three chemicals, sodium sulphite, sodium bisulphite and sodium thiosulphate, in the ratio of 3:3:4 based on the usage of block as reported by the producers.

The following table gives in a summarised form under the broad categories, namely, raw materials and other charges, the estimates of cost of production made by the Board in 1948, the actual cost of production during the year ended July 1951, the estimate of the future cost and the increase or decrease of the future cost over the Board's estimate for the cost of production for 1948-49.

Item of cost.	Estimate for 1948-49 per cwt.	Actuals for 1950-51 per cwt.	Estimate for 1952 per cwt.	Increase or decrease of estimate for 1952 over the estimate for 1948-49 per cwt.
	Rs.	Rs.	Rs.	Rs.
	(a) *Sodium thiosulphate*			
Raw materials	12.68	14.73	19.70	+ 7.02
Other Charges	20.94	28.33	24.29	+ 3.35
Total	33.62	43.06	43.99	+10.37
	(b) *Sodium sulphite*			
Raw materials	22.20	25.68	32.38	+ 10.18
Other Charges	30.47	32.66	27.46	3.01
Total	52.67	58.34	59.84	+ 7.17
	(c) *Sodium bisulphite*			
Raw materials	13.37	16.34	21.39	+ 8.02
Other Charges	27.80	28.63	26.83	- 0.97
Total	41.17	44.97	48.22	+ 7.05

It will be seen from the above statement that the increase in the cost over that estimated by the Board in 1948-49 is mainly due to the increase in the cost of raw materials used in the manufacture of these three chemicals. The reduction in the manufacturing cost of sodium sulphite and sodium bisulphite under the sub-head 'other charges' is due to our assumption of a higher figure of production in 1952 than that estimated in 1948-49, whereas the increase in the corresponding expenditure of sodium thiosulphate is due to expected lower production in 1952 as compared with the assumed production for 1948-49.

Comparison of landed cost and fair selling price.

12. We give below a comparative statement showing the landed cost per cwt. of the imported sodium thiosulphate, sodium sulphite and sodium bisulphite, the fair selling prices (ex-works) of the indigenous products and the difference indicating the rates of duties required to equate the fair selling price of the indigenous articles with the landed cost of the imported articles.

Source of information.	Collector of Customs Calcutta.		Watts Chemicals, Ltd., London.			John Riley & Sons, Ltd., Hapton, England.	
Name of the chemical	Sodium thio-sulphate	Sodium bisulphite	Sodium thio-sulphate	Sodium sulphite	Sodium bi-sulphite	Sodium thio-sulphate	Sodium sulphite
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
(i) C.i.f. price	59.50	87.50	29.10	23.98	38.43	29.49	42.68
(ii) Customs duty	13.00	19.00	13.00	23.00	19.00	13.00	23.00
iii) Surcharge	0.65	0.95	0.65	1.15	0.95	0.65	1.15
(iv) Clearing charges	0.50	0.50	0.50	0.50	0.50	0.50	0.50
(a) Total landed cost (i to iv)	73.65	107.95	43.25	48.63	58.88	43.64	67.33
(b) Landed cost ex-duty (i + iv)	60.00	88.00	29.60	24.48	38.93	29.99	43.18
(c) Estimated fair selling price of indigenous product (ex-works)	43.99	48.22	43.99	59.84	48.22	43.99	59.84
(d) Difference between the estimated fair selling price and landed cost ex-duty (c-b)	-16.01	-39.78	14.39	35.36	9.29	14.00	16.66
(e) Difference (d) as percentage on c.i.f. price	-26.9%	-45.5%	49.5%	147.5%	24[illegible]	[illegible]	[illegible]

In these calculations, clearing charges have been assumed at a uniform rate of Rs. 0.5 per cwt. as was adopted by the Board in its inquiry in 1949, because there has been no increase in the clearing charges since 1949. It will be seen from the above statement that the duties indicated per cwt. on sodium sulphite, sodium bisulphite and sodium thiosulphate based on the c.i.f. prices furnished by Messrs. Watts Chemicals Ltd., amount to Rs. 35.36, Rs. 9.29 and Rs. 14.39 respectively. Based on the figures furnished by the Collector of Customs, Calcutta for consignments actually landed in July, 1951, the indigenous manufacturers stand in an advantageous position by Rs. 39.78 per cwt. for sodium bisulphite and Rs. 16.01 per cwt. for sodium thiosulphate over the landed cost excluding duty. On a comparison with the calculated c.i.f. prices furnished by Messrs. John Bailey & Sons, the duty indicated for sodium sulphite amounts to Rs. 16.66 per cwt. and Rs. 14 per cwt. for sodium thiosulphate over the landed cost excluding duty. In short, the import duty indicated above varies from Rs. 14 to a negative figure of Rs. 16.01 for sodium thiosulphate, from Rs. 16.66 to Rs. 35.36 per cwt. for sodium sulphite and from Rs. 9.29 to a negative figure of Rs. 39.78 for sodium bisulphite. This disparity is due to wide variations in the c.i.f. prices or quotations received by the Board from different sources.

Measure of protection.

13. As pointed out in paragraph 11, the increase in the cost of production of indigenous products is mostly due to the increase in the price of raw materials, particularly sulphur. It may well be presumed that such an increase in the price of this raw material would equally affect the cost of production of the foreign manufacturers and the c.i.f. prices of the imported products would obviously be higher than those adopted by the Board in 1949. This may not, however, be true in the case of those foreign manufacturers who produce these chemicals from some of the by-products obtained in the manufacture of other chemicals. Again, in accordance with the import control

policy for the period January-June, 1952, no licence for imports of these chemicals will be issued for imports from soft and hard currency areas. There is, therefore, no imminent danger of large scale imports of these chemicals into the country. Besides, it has not been possible to obtain the c.i.f. prices of actual imports of these chemicals during the last 6 months and whatever quotations have been received from foreign manufacturers show wide disparity. It is, therefore, not possible to arrive at a reasonable basis for the revision of the existing rates of import duties. We, therefore, recommend that the existing rates of duties on these chemicals should be extended for a further period of three years, i.e., upto 31st December, 1954. The industry may, however, apply for revision of duty under Section 4(1) of the Tariff Act, 1934, if at any future date the import control policy is liberalised and foreign imports of photographic chemicals take place at prices which warrant higher rates of duty.

Other assistance asked for by the industry and Board's recommendations.

14. (a) We have, in paragraph 13, considered the industry's request for further continuance of protection. In addition, the industry has asked for the following further measures of protection:-

(i) Total ban on imports of the three types of photographic chemicals covered by the scope of our inquiry on the ground that the indigenous productive capacity in respect of such chemicals is sufficient to meet the whole of the domestic demand. It is also pointed out by the producers that the absence of competition from imported products resulting from the banning of imports will give the necessary stimulus to the industry to produce up to its maximum productive capacity and thus reduce its costs of production.

(ii) Control over the establishment of new units and integration of production in the existing units in order to enable the existing units to utilize their capacity to meet the domestic demand and thus reduce the costs of production. It is pointed out by the producers that unnecessary internal competition combined with diminishing demand will aggravate the difficulties of producing photographic chemicals on an economic level. It is suggested by them that this control on multiplication of new units of production could be exercised by means of allocations of sulphur which is an important raw material in the production of photographic chemicals and whose supply is subject to control by Government.

(iii) Facilities for exports of photographic chemicals to the neighbouring Asian countries.

(iv) Adequate supplies of sulphur at reasonable prices.

(b) These requests of the industry are discussed below seriatim:-

(i) *Ban on imports:* From the estimates of rated capacity of the industry given earlier in the Report, we consider that the indigenous industry is capable of meeting the whole of the domestic demand for the three photographic chemicals covered by the scope of our inquiry. We would like to point out, however, that import control is maintained primarily on balance of payment grounds, and is not intended to serve as an additional form of protection. As already pointed out earlier in the Report, at present, imports of photographic chemicals are subject to restrictions and there are hardly any imports. Since, however, most of the demand in the country for these chemicals can be met by indigenous manufacturers, we recommend that so long as the policy of licensing imports has to be continued for balance of payment considerations, the desirability of maintaining and expanding the indigenous production of these chemicals should be kept in view and the quantum of imports regulated accordingly.

(ii) *Control over the establishment of new units and integration of production:* As already pointed out, there is considerable surplus capacity to produce the three photographic chemicals. The production of these chemicals also requires considerable capital investment in machinery and equipment, and a high degree of technical skill in order to obtain products of high quality. It would, therefore, be economical if production of these chemicals is integrated in a few units producing photographic chemicals in order to maximize production up to their rated capacity and reduce costs. At the same time, we feel that concentration of production in a few units would give such units an opportunity to charge excessive prices. In fact, we have received complaints that in some cases the indigenous producers taking advantage of the protection granted by Government and restriction of imports of photographic chemicals have charged higher prices than would have been the case if there had been competition amongst indigenous producers and from importers. And from inquiries made by us in reviewing the progress made by this industry during the period of protection, we had found that the selling prices of sodium thiosulphate and sodium bisulphite had generally been higher than the fair selling prices fixed at the previous tariff inquiry and also the selling price of the imported products. In the case of sodium sulphite, however, the selling prices have been below those of the imported product. We have carefully considered the different aspects of this question and we recommend that Government should give due consideration to the suggestions made by the industry about this matter in granting licences under the Industries (Development and Regulation) Act, 1951, for the establishment of new factories for the production of these chemicals, and in allocating the distribution of scarce raw materials such as sulphur which are subject to distribution control.

(iii) *Facilities for export:* Though generally it is very desirable for the indigenous industries having sufficient surplus capacity and production to explore markets for their products in foreign countries, the position of industries dependent on foreign countries for their supplies of raw material raises different considerations. In the case of the photographic chemicals industry, one of the principal imported raw materials, *viz*, sulphur, is at present subject to distribution control in view of the fact that it is a scarce commodity the world over. We, therefore, do not make any recommendation about this matter in the present circumstances.

(iv) *Procurement of sulphur*: The manufacturers have stated that they have, at times, experienced difficulty in obtaining adequate allocation of sulphur from Government resulting in intermittent production and inability to produce up to their rated productive capacities. It is further stated that the total quantity of sulphur required by the industry constitutes only one per cent. of the total quantity of sulphur available for distribution in the country. We recommend that the Central Government should assist the industry in obtaining adequate supplies of sulphur at reasonable prices.

(c) We consider that Government patronage offers an effective way of promoting the development of indigenous industries, and we, therefore, recommend that Government Department should, as far as possible, obtain their requirements of photographic chemicals from indigenous producers, provided the quality is satisfactory and the price is reasonable.

15. Our conclusions and recommendations are summarised hereunder:-

Summary of conclusions and recommendations.

(i) For reasons stated in paragraph 3 above, the Board does not consider it necessary to include X-ray developers and acid fixing salts with hardener within the scope of its present inquiry and has accordingly decided to confine the scope to only three photographic chemicals, namely, sodium thiosulphate, sodium sulphite and sodium bisulphite.

(ii) The annual demand for sodium thiosulphate, sodium sulphite and sodium bisulphite is estimated at about 600 tons, 250 tons and 300 tons respectively. [Paragraph 5]

(iii) The present annual rated capacity of the industry is 1650 tons for sodium thiosulphate, 396 tons for sodium sulphite and 672 tons for sodium bisulphite. The actual production during 1951 was 677 tons of sodium thiosulphate, 202 tons of sodium sulphite and 296 tons of sodium bisulphite. [Paragraph 6]

(iv) The consensus of opinion at the public inquiry was that the quality of the indigenous products was satisfactory and comparable with that of the imported materials. There is, however, considerable scope for improvement as regards purity and uniformity in performance of the indigenous photographic chemicals. [Paragraph 7 (c)]

(v) The producers should carefully study the possibilities of bringing about improvement in their products at every stage of their manufacture and should make arrangements to get their final products tested in regard to physical and chemical properties and their performance in photographic work. [Paragraph 7 (c)]

(vi) The existing rates of duties on these chemicals should be extended for a further period of 3 years, *i.e.*, up to 31st December, 1954. [Paragraph 13]

(vii) The industry may apply for revision of duty under Section 4(1) of the Tariff Act, 1934, if at any future date, the import control policy is liberalized and foreign imports of photographic chemicals take place at prices which warrant higher rate of duty. [Paragraph 13]

(viii) Since most of the demand in the country for the photographic chemicals within the scope of the inquiry can be met by indigenous manufacturers, the desirability of maintaining and expanding the indigenous production of these chemicals should be kept in view and the quantum of imports regulated accordingly so long as the policy of licensing imports has to be continued for balance of payment considerations. [Paragraph 14(b) (i)]

(ix) The Central Government should assist the industry in obtaining adequate supplies of sulphur at reasonable prices. [Paragraph 14(b) (iv)]

(x) Government Departments should, as far as possible, obtain their requirements of photographic chemicals from indigenous producers provided the quality is satisfactory and the price is reasonable. [Paragraph 14 (c)]

Acknowledgments.

16. We wish to express our thanks to the manufacturers, importers and consumers for their co-operation in carrying out this inquiry. Our thanks are also due to Shri N. Shrinivasan, Deputy Development Officer, Development Wing (Directorate of Chemicals, Drugs and Plastics) Ministry of Commerce and Industry, Government of India, Shri J.N. Joshi, Principal Appraiser, Bombay Customs House, Dr. C.B. Patel, Assistant Industrial Chemist in the Office of the Director of Industries, Bombay, Shri S.S. Mehta, the Board's Technical Adviser and Shri S.V. Rajan, Assistant Cost Accounts Officer attached to the Board for their assistance in connection with this inquiry.

B.V. NARAYANASWAMY,
Member.

B.N. ADARKAR,
Member.

M.A. MULKY,
Secretary.

Bombay,
dated 19-1-1952.

APPENDIX I

(*Vide* paragraph 1)

GOVERNMENT OF INDIA
MINISTRY OF COMMERCE

New Delhi,
the 6th August, 1948.

RESOLUTION
(Tariffs)

No. 30-T(1)/48.- In their Resolution No. 218-T(55)/45, dated the 3rd November, 1945, has partially modified by Resolution No. 28-T(37)/47, dated the 26th November, 1947, the Government of India constituted a Tariff Board for the discharge of the duties specified in the Resolution cited above. It has now been decided that the Board shall be entrusted with the following functions in addition to those enumerated in paragraph 5 of the Department of Commerce Resolution No. 218-T(55)/45, dated the 3rd November, 1945, and paragraph 2 of the Ministry of Commerce Resolution No. 28-T(37)/47, dated the 26th November, 1947:

(1) to enquire, as and when required by Government into the cost of production of a commodity produced in the country and to determine its wholesale, retail or other prices, and to report on the same;

(2) to recommend to Government, as and when required, measures necessary for the protection of India's industries from dumping from abroad;

(3) to undertake studies, as and when necessary, on the effects of *ad valorem* and specific duties and tariff valuations on various articles and the effects on tariff concessions granted to other countries; and

(4) to report to Government, as and when necessary, on combinations, trusts, monopolies and other restraints on trade, which may tend to affect the industries enjoying protection by restricting production, or maintaining or raising prices and to suggest ways and means of preventing such practices.

2. The Tariff Board is also hereby authorised to maintain a continuous watch over the progress of protected industries by conducting enquiries, as and when necessary, on the effects of the protective duties or other means of assistance granted, and advise Government regarding the necessity or otherwise of modifying the protection or assistance granted. The Board should also keep a careful watch to ensure that conditions attached to the grant of protection were fully implemented and that the protected industries were being run efficiently.

3. In discharging the functions enumerated in paragraph 2 of this Resolution, the Board should, in the case of all industries where he is concerned, seek the assistance and advice of the Director General, Industry and Supply as an organisation, which will supply the Board with the technical assistance required in keeping the necessary watch over the growth of protected industries.

APPENDIX II

(*Vide* paragraph 2)

List of persons or bodies to whom the Board's questionnaires were issued and from whom replies or memoranda were received.

* Indicates those who sent memoranda or detailed replies to the questionnaires.

(a) *Sodium Thiosulphate, Sodium Sulphite and Sodium Bisulphite.*

A. PRODUCERS

* 1. The Kesar Sugar Works Ltd.,
45-47, Apollo Street, Fort,
Bombay.

* 2. Liberty Chemical Works,
Ramchandra Mansion,
487, Sandhurst Road, (West),
Bombay-4.

* 3. Shambhu Nath & Sons Ltd.,
G.T.Road, Post Box No. 12,
Amritsar.

4. Cawnpore Chemical Works Ltd.,
Anvarganj, Kanpur.

B. ASSOCIATION

* Indian Chemical Manufacturers' Association,
23-B, Netaji Subhas Road, Calcutta.

C. IMPORTERS

* 1. Allied Photographics Ltd.,
193, Hornby Road, Bombay.

2. Imperial Chemical Industries (India) Ltd.,
18, Strand Road, Calcutta.

* 3. Kodak Ltd.,
Kodak House, Hornby Road, Fort, Bombay.

4. Martin & Harris Ltd.,
Savoy Chambers, Wallace Street, Bombay.

सत्यमेव जयते

D. CONSUMERS

* 1. The Indian Motion Picture Producers' Association, Sandhurst Building,
Sandhurst Road, Bombay-4.

* 2. The Bombay Film Laboratories Ltd.,
149, Portuguese Church Street, Dadar, Bombay.

* 3. Famous Cine Laboratory,
156, Tardeo Road, Bombay.

* 4. Ram L. Gogtay Esq.,
No. 8 Dhunastra, Wodehouse Road, Bombay-5.

* 5. National Chemicals Ltd.,
4, Blackers Road, Mount Road, Madras.

6. M/s. Finlay Mills Ltd.,
Government Gate Road, Parel, Bombay-12.

7. M/s. Chrompet Tanneries Ltd.,
Madras.

(b) *X-Ray Developers and Acid Fixing Salts with hardener.*

A. PRODUCERS

* 1. The Kesar Sugar Works Ltd.,
45-47, Apollo Street, Fort, Bombay.

* 2. Liberty Chemical Works,
Ramchandra Mansion, 187, Sandhurst Road,(West),
Bombay - 4

B. ASSOCIATION

* Indian Chemical Manufacturers' Association,
23-B, Netaji Subhas Road, Calcutta,

C. IMPORTERS

* 1. Victor X-Ray Corporation (India) Ltd.,
Thakersey House, Graham Road, Ballard Estate,
Bombay.

* 2. Ilford - Selo (India) Ltd.,
Cook's Building, Hornby Road, Bombay.

* 3. Kodak Ltd.,
Kodak House, Hornby Road, Bombay.

* 4. Allied Photographics Ltd.,
193, Hornby Road, Bombay.

D. CONSUMERS

- * 1. J.J. Group of Hospitals, Bombay.
- * 2. K.E.M. Hospital, Bombay.
- * 3. Sir Hurkisondas Nurrotumdas Hospital,
  Charni Road, Bombay.
- * 4. Lake Medical Hospital, Lake Area,
  Rashbehari Avenue Post, Ballygunge, Calcutta.
- * 5. Royapettah Government Hospital, Madras.
- * 6. Raipur Government Hospital, Raipur (Madhya Pradesh).
- * 7. St. George's Hospital, Frere Road, Bombay.
- * 8. Government Central Hospital, Madras.
- * 9. Sir David Sasoon Hospital, Poona - 1.
- * 10. G.T. Hospital, Near Dhobi Talao, Bombay.
- * 11. Secretary, Medical College Hospitals, Calcutta.
- * 12. Tata Memorial Hospital, Parel Road, Bombay.
- * 13. The Indian Radiological Association,
  Navasari Building, 3rd Floor,
  Hornby Road, Bombay.

सत्यमेव जयते

APPENDIX III

(*Vide* paragraph 2)

List of persons who attended the Board's public inquiry on 28th December, 1951.

PRODUCERS

1.	Shri D.M. Trivedi	Representing	The Kesar Sugar Works Ltd., P.O. Box No. 746, BOMBAY.
2.	Shri N.G. Madan		
3.	Shri T.V. Bhatt	"	The Liberty Chemical Works, 487, Sandhurst Road, (West), BOMBAY 4.
4.	Shri A.C. Sen	"	Shambhu Nath & Sons Ltd., P.O.Box No.12, AMRITSAR.
5.	Shri S.R. Kapoor		

IMPORTERS

6.	Shri G.S. Ghurye	"	Kodak Limited, P.O. Box No. 343, BOMBAY 1.
7.	Shri D.A. Bilimoria	"	Victor X-Ray Corporation (India) Ltd., P.O. Box No. 1044, BOMBAY 1.
8.	Shri V.K. Krishna	"	Ilford-Selo (India) Ltd., P.O.Box No. 314, BOMBAY 1.

सत्यमेव जयते

CONSUMERS

9.	Shri R.S. Joshi	Representing	Bombay Film Laboratories Ltd., 149, Portuguese Church Street, Dadar, BOMBAY 28.
10.	Dr. R.F. Sethna	"	J.J. Group of Hospitals, Bombay & Indian Radiological Association, Navasari Building, Hornby Road, Fort, BOMBAY 1.
11.	Dr. N.N. Shah	"	St. George's Hospital, Frere Road, BOMBAY 1
12.	Dr. P.M. Sangani	"	Sir Hurkisondas Nurrotamdas Hospital, New Charni Road, BOMBAY.
13.	Dr. C.G. Talwalker	"	Goculdas Tejpal Hospital, Near Dhobi Talao, BOMBAY.
14.	Dr. L. N. Kurulkar	"	K.E.M. Hospital, Parel, BOMBAY.
15.	Dr. V.G. Kudalkar		
16.	Shri Ram L. Gogtay		

ASSOCIATIONS

17.	Shri M.T. Shah	"	Indian Chemical Manufacturers' Association, 23-B, Netaji Subhas Road, CALCUTTA,
18.	Shri I.K. Menon	"	Indian Motion Picture Producers' Association, Sandhurst Building, Sandhurst Road, BOMBAY 4.

सत्यमेव जयते

FFICIALS

19.	Shri N. Srinivasan	"	Directorate of Chemicals, Drugs & Plastics, (Development Wing), Ministry of Commerce & Industry, NEW DELHI.
20.	Shri J.N. Joshi	"	Collector of Customs, BOMBAY.
21.	Dr. C.B. Patel	"	Director of Industries, BOMBAY.

APPENDIX IV

(*Vide* paragraph 11)

STATEMENT SHOWING THE COMPARISON OF COST (i) AS ESTIMATED BY THE BOARD IN 1948, (ii) ACTUALS DURING THE YEAR ENDED 31ST JULY, 1951 AND (iii) AS ESTIMATED FOR THE YEAR 1952.

(A) *SODIUM THIOSULPHATE*

Production	AS ESTIMATED BY THE BOARD IN 1948			ACTUALS DURING THE YEAR ENDED 31- 7- 1951.			ESTIMATE FOR THE YEAR 1952		
	10,060 cwts.			5,160 cwts.			7,000 cwts.		
Details	Rate per cwt.	Qty. per cwt. of chemical	Cost per cwt.	Rate per cwt.	Qty. per cwt. of chemical	Cost per cwt.	Rate per cwt.	Qty. per cwt. of chemical.	Cost per cwt.
1	2	3	4	5	6	7	8	9	10
	Rs.	cwt.	Rs.	Rs.	cwt.	Rs.	Rs.	cwt.	Rs.
1. *Raw Material:*									
(a) Sulphur	10.00	0.3137	3.14	10.11	0.3517	3.56	22.20	0.3137	6.96
(b) Soda Ash	16.60	0.5000	8.25	18.38	0.5615	10.32	22.56	0.5000	11.28
(c) Caustic soda	33.19	0.0388	1.29	30.76	0.0275	0.85	37.65	0.0388	1.46
Total of 1			12.68			14.73			19.70
2. *Power and fuel:*									
(a) Power			0.37			0.74			0.55
(b) Fuel			2.98	5.03	0.599	3.01	6.50	0.50	3.20
3. Labour			4.45			7.07			5.96
4. Repairs an			1.59			2.94			2.49
5. Consumable			0.14			0.28			0.28

1	2	3	4	5	6	7	8	9	10
6. *Establishment:*									
(a) Officers			0.83			1.16			0.34
(b) Others			1.12			0.92			0.81
7. Depreciation			1.36			2.09			1.40
8. Other overheads			0.73			1.50			1.11
9. Packing			4.54			4.00			4.00
10. Interest on working Capital.			0.41			0.43			0.46
Total cost of production			31.20			38.87			40.90
11. Return on block at 10%			2.42			4.19			3.09
Fair selling price (ex-factory)			33.62			43.06			43.39
or say			Rs.33-10-0			Rs. 43-1-0			Rs.44-0-0

(B) *SODIUM SULPHITE*

Production	2752 Cwts.			3565 Cwts.			4800 Cwts.		
1	2	3	4	5	6	7	8	9	10
	Rs.	cwt.	Rs.	Rs.	cwt.	Rs.	Rs.	cwt.	Rs.
1. *Raw material:*									
(a) Sulphur	10.00	0.3163	3.16	10.11	0.3584	3.62	22.20	0.3153	7.00
(b) Soda Ash	16.50	0.9716	16.03	18.38	1.0883	20.00	22.56	1.0000	22.56
(c) Caustic soda	33.19	0.0909	3.02	30.78	0.0668	2.06	37.65	0.0750	2.82
Total of (1)			22.20			25.68			32.33
2. *Power and fuel:*									
(a) Power			0.78			0.80			0.80
(b) Fuel			2.37	5.03	0.7040	3.54	6.50	0.6000	3.90

1	2	3	4	5	6	7	8	9	10
3. Labour			7.93			7.75			6.18
4. Repairs and maintenance			2.85			3.19			2.37
5. Consumable stores			0.24			0.31			0.31
6. *Establishment:*									
(a) Officers			1.47			1.95			1.59
(b) Others			2.01			1.54			1.26
7. Depreciation			2.41			2.27			1.53
8. Other overheads			1.30			2.52			1.67
9. Packing			4.54			3.65			3.66
10. Interest on working Capital.			0.84			0.60			0.63
Total cost of production			48.74			53.80			56.47
11. Return on Block @ 10%			3.93			4.54			3.37
Fair selling price (ex-factory)			52.67			58.34			59.84
or say			Rs. 52-10-9			Rs. 58-5-0			Rs. 59-13-0

(C) *SODIUM BISULPHITE*

Production	2818 Cwts.			4170 Cwts.			4800 Cwts.		
1	2	3	4	5	6	7	8	9	10
	Rs.	Cwt.	Rs.	Rs.	Cwt.	Rs.	Rs.	Cwt.	Rs.
1. *Raw materials:*									
(a) Sulphur	10.00	0.3655	3.66	10.11	0.4144	4.19	22.20	0.3655	8.11
(b) Soda Ash	16.50	0.5887	9.71	18.38	0.6610	12.15	22.56	0.5887	13.28
al of (1)			13.37			16.34			21.39

1	2	3	4	5	6	7	8	9	10
2. *Power and Fuel:*									
(a) Power			0.53			0.69			0.69
(b) Fuel			0.60	5.03	0.557	2.80	8.50	0.48	3.12
3. Labour			8.12			8.64			8.20
4. Repairs and maintenance			2.92			2.72			2.37
5. Consumable Stores			0.25			0.28			0.28
6. *Establishment:*									
(a) Officers			1.51			1.81			1.73
(b) Others			2.05			1.43			1.37
7. Depreciation			2.47			1.94			1.53
8. Other overheads			1.34			2.35			2.04
9. Packing			4.54			3.65			3.65
10. Interest on Working Capital.			0.50			0.46			0.50
Total cost of production			38.20			41.09			44.85
11. Return on block at 10%			2.97			3.88			3.37
Fair selling price (ex-factory)			41.17			44.97			48.22
or say			Rs. 41-2-9			Rs. 45-0-0			Rs. 48-4-0